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Gero G. McClellan
Thomason, Moser & Patterson, L.L.P.
3040 Post Oak Boulevard, Suite 1500
Houston, TX 77056-6582

EXAMINER

LEE, PHILIP C

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/853,957

Applicant(s)

DETTINGER, RICHARD DEAN

Examiner

Philip C. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. This action is responsive to the amendment and remarks filed on November 23, 2004.
2. Claims 1-34 are presented for examination. Claims 33 and 34 are new claims.
3. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.

Claim Rejections - 35 USC 112

3. Claims 1-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - a. Claim language in the following claims is not clearly understood:
 - i. As per claim 1, lines 3-4, it is unclear what is the difference between a portion of a client command (line 3) and the client command (line 4) (i.e., Does “the client command” means remaining portion of the client command or all portions of the client command).
 - ii. As per claim 1, line 6, it is uncertain if executing the predicted client command means executing the remaining portion of the client command or all portions of the client command.

- iii. As per claim 2, lines 2-4, if a matching command is for the received portion of the client command (i.e., prior to receiving all or remaining portion of the client command), then it is unclear how does the server executing the predicted client command comprises executing the matching command (i.e., does it means executing both the matching command (i.e. received portion) and the remaining portion of the client command or all portions of the client command (i.e. the predicted client command).
- iv. As per claim 3, line 3, it is unclear if the client command refers to the remaining portion of the client command or the received portion of the client command in claim 2, lines 2-3; It is unclear if matching the matching command refers to matching the received portion of the client command or the remaining/predicted client command.
- v. As per claim 4, line 2, it is not clearly understood if the client command refers to the received portion of client command in claim 1, line 3 or the remaining portion of the client command in claim 3, line 2; Line 3, it is unclear if the client command as received refers to the received portion of client command in claim 1, line 3 or the remaining portion of the client command in claim 3, line 2.
- vi. As per claim 6, lines 6-7, it is uncertain if the client command, as received in its entirety refers to the remaining portion of the client command in line 4.
- vii. As per claim 7, lines 5-6, it is uncertain if the matching command refers to the predicted client command at the server or the portion of the client command sent which is stored in the client computer.

- viii. As per claims 8-34, please correct the similar 112th problems as in claims 1-7 above.

Claim Rejections – 35 USC 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Aaker, U.S. Patent 5,758,087 (hereinafter Aaker).
5. As per claim 1, Aaker taught the invention as claimed, comprising:
receiving a portion of a client command from a client computer (col. 5, lines 47-57);
predicting the client command based on the portion of the client command (col. 5, lines 47-57), prior to receiving all portions of the command from the client computer (Note that since the first or current request (i.e., portion of the client command) is use to predict the next request (i.e., remaining portion of the client command), therefore it is inherent that prediction of the client command is made prior to receiving all or remaining portion of the command) (col. 3, lines 20-26); and

executing the predicted client command (col. 5, lines 47-57).

6. As per claim 2, Aaker taught the invention substantially as claimed in claim 1 above. Aaker further taught wherein predicting the client command comprises determining a matching command for the received portion of the client command (col. 5, lines 47-57; col. 6, lines 15-26) and wherein executing the predicted client command comprises executing the matching command (col. 5, lines 47-57; col. 6, lines 15-26).

7. As per claim 3, Aaker taught the invention as claimed in claim 2 above. Aaker further taught comprising:

receiving a remaining portion of the client command from the client computer (col. 5, lines 34-35; col. 5, lines);

determining whether the client command matches the matching command (col. 5, lines 47-57); and

if the client command matches the matching command, sending a result of executing the matching command to the client computer (col. 5, lines 35-36, 47-57).

8. As per claim 5, Aaker taught the invention as claimed in claim 1 above. Aaker further taught comprising sending a result of executing the predicted client command to the client computer (col. 5, lines 47-54).

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9. As per claim 6, Aaker taught the invention as claimed in claim 5 above. Aaker further taught comprising:

determining whether the result of executing the predicted client command is correct (col. 5, lines 47-57);

if not, receiving a remaining portion of the client command from the client computer (col. 5, lines 47-57); and

sending a result of executing the client command, as received in its entirety from the client compute, to the client computer (col. 5, lines 47-50).

Claim Rejections – 35 USC 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aaker et al, U.S. Patent 5,758,087 (hereinafter Aaker).

12. As per claim 7, Aaker taught the invention substantially as claimed in claim 6 above. Aaker further taught wherein determining whether the result of executing the predicted client command is correct comprises:

predicting the client command based on the portion of the client command (col. 5, lines 47-57);

determining whether the client command matches the matching command (col. 5, lines 47-57; col. 6, lines 15-26); and

if not, sending a result of executing the client command, as received in its entirety from the client compute, to the client computer (col. 5, lines 47-50).

13. Although, Aaker did not specifically disclose detailing the method of predicting the client command can be performed at the client computer, however, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to include the method of predicting the client command at the client computer because doing so it would increase the efficiency of Aaker's system by reducing the network traffic for processing the method of prediction between the client and server.

(Note that it is inherent that if the method of predicting the client command is performed at the client computer, it is inherent that if client command does not match, the client command must be sent in its entirety along with a flag indicating an unsuccessful prediction from the client computer to the server computer).

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14. Claims 4, 8, 11-14, 16-25, 28-29 and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aaker et al, U.S. Patent 5,758,087 (hereinafter Aaker) in view of Luick, U.S. Patent 6,230,260 (hereinafter Luick).

15. As per claims 11 and 18, Aaker taught the invention substantially as claimed, comprising: commands expected to be received from the client computer (col. 6, lines 15-26); and determine a predicted command in response to receiving a portion of a client command from the client command (col. 5, lines 47-57) prior to receiving a remaining portion of the client command (Note that since the first or current request (i.e., portion of the client command) is use to predict the next request (i.e., remaining portion of the client command), therefore it is inherent that prediction of the client command is made prior to receiving all or remaining portion of the command) (col. 3, lines 20-26).

16. Aaker did not teach a command set database and a processor configured to determine a predicted command. Luick taught an invention comprising:

a command set database, wherein the command set database comprises commands expected to be received (col. 6, lines 25-30); and

a processor configured to determine predicted command from the command set database (col. 6, lines 15-24; col. 9, lines 21-24).

17. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Aaker and Luick because Luick's teaching of a

command set database and a processor configured to determine predicted command would increase the efficiency of Aaker's system by minimizing the delays associated with the execution of the received commands (col. 3, lines 18-23).

18. As per claims 17 and 28, Aaker taught the invention substantially as claimed comprising: receive portions of commands from a client computer connected to the network (col. 5, lines 47-57; fig. 1).

commands expected to be received by the client computer (col. 6, lines 15-26); and determine a predicted command in response to receiving a portion of a client command from a client computer (col. 5, lines 47-57), prior to receiving the entire client command from the client computer (Note that since the first or current request (i.e., portion of the client command) is use to predict the next request (i.e., remaining portion of the client command), therefore it is inherent that prediction of the client command is made prior to receiving all or remaining portion of the command) (col. 3, lines 20-26).

19. Aaker did not teach a command set database and a processor configured to determine a predicted command. Luick taught an invention comprising:

an input memory area to receive commands (col. 3, line 64-col. 4, lines 9; col. 7, lines 31-39; col. 11, lines 60-62);

a command set database, wherein the command set database comprises commands expected to be received (col. 6, lines 25-30);

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an output memory area to stored results generated by executing commands received (col. 12, lines 16-42); and
a processor configured to determine predicted command from the command set database (col. 6, lines 15-24; col. 9, lines 21-24).

20. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Aaker and Luick because Luick's teaching of a command set database and a processor configured to determine predicted command would increase the efficiency of Aaker's system by minimizing the delays associated with the execution of the received commands (col. 3, lines 18-23).

21. As per claim 19, Aaker and Luick taught the invention substantially as claimed in claim 18 above. Aaker and Luick further taught wherein determining whether matching command exists for the received portion of the client command (see Aaker, col. 5, lines 47-57; col. 6, lines 15-26) comparing the received portion of the command to commands in a command set database (See Luick, col. 6, lines 25-30; col. 11, lines 64-col. 12, lines 2).

22. As per claims 12 and 29, Aaker and Luick taught the invention substantially as claimed in claim 11 and 28 above. Luick further taught wherein the processor is configured to determine the predicted command by:

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determining whether a matching command exists in the command set database for the portion of the command received (col. 3, lines 64-col. 4, lines 9; col. 12, lines 3-6) in an input memory area (col. 3, line 64-col. 4, lines 9; col. 7, lines 31-39; col. 11, lines 60-62); if so, executing the matching command (col. 4, lines 18-22); and storing a result of executing the matching command in an output memory area (col. 12, lines 16-42).

23. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Aaker and Luick for the reason set forth in claims 11 and 28 above.

24. As per claim 20, Aaker and Luick taught the invention substantially as claimed in claim 18 above. Aaker further taught comprising:

receiving a remaining portion of the client command from the client computer (col. 5, lines 34-35; col. 5, lines);

determining whether the client command matches the matching command (col. 5, lines 47-57); and

if the client command matches the matching command, sending a result of executing the matching command to the client computer (col. 5, lines 35-36, 47-57).

25. As per claims 4 and 21, Aaker and Luick taught the invention substantially as claimed in claims 3 and 20 above. Aaker and Luick further taught comprising:

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if the client command does not match the matching command, executing the client command as received from the client computer (Luick, col. 12, lines 19-46); and sending a result of executing the client command, as received from the client computer, to the client computer (Aaker, col. 5, lines 47-50).

26. As per claim 22, Aaker and Luick taught the invention substantially as claimed in claim 18 above. Aaker further taught comprising sending a result of executing the matching command to the client computer (col. 5, lines 47-54).

27. As per claims 13-14, 23 and 31-32, Aaker and Luick taught the invention substantially as claimed in claims 11, 22 and 28 above. Aaker further taught comprising:

determining whether the result of executing the predicted client command is correct (col. 5, lines 47-57);

if not, receiving a remaining portion of the client command from the client computer (col. 5, lines 47-57); and

sending a result of executing the client command, as received in its entirety from the client compute, to the client computer (col. 5, lines 47-50).

28. As per claim 24, Aaker and Luick taught the invention substantially as claimed in claim 23 above. Aaker and Luick further taught wherein determining whether the result of executing the predicted client command is correct comprises:

predicting the client command based on the portion of the client command (see Aaker, col. 5, lines 47-57);

determining whether the client command matches the matching command (see Aaker, col. 5, lines 47-57; col. 6, lines 15-26); and

if not, sending a result of executing the client command, as received in its entirety from the client compute, to the client computer (see Aaker, col. 5, lines 47-50).

29. Although, Aaker and Luick did not specifically disclose detailing the method of predicting the client command can be performed at the client computer, however, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to include the method of predicting the client command at the client computer because doing so it would increase the efficiency of Aaker's and Luick's systems by reducing the network traffic for processing the method of prediction between the client and server.

(Note that it is inherent that if the method of predicting the client command is performed at the client computer, it is inherent that if client command does not match, the client command must be sent in its entirety along with a flag indicating an unsuccessful prediction form the client computer to the server computer).

30. As per claims 8, Aaker taught the invention as claimed in claim 7 above. Although Aaker taught wherein predicting the client command comprises determining a matching command for the portion of the client command by comparing a portion of the client command sent to the server computer with command sets (see Aaker, col. 5, lines 47-57; col. 6, lines 15-

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26), Aaker, however, did not teach a command set database. Luick taught a similar system comprising a command set database (see Luick, col. 8, lines 66-col. 9, lines 5; col. 11, lines 62-col. 12, lines 6).

31. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include the method of predicting the client command at the client computer because doing so it would increase the efficiency of Aaker's and Luick's systems by reducing the network traffic for processing the method of prediction between the client and server.

32. As per claim 25, Aaker and Luick taught the invention substantially as claimed in claim 24 above. Aaker and Luick further taught wherein determining whether the client command, in its entirety, matches the matching command (see Aaker, col. 5, lines 47-57) comprises comparing the client command, in its entirety to entries (see Aaker, col. 5, lines 47-57; col. 6, lines 15-26) in a database (see Luick, col. 8, lines 66-col. 9, lines 5; col. 11, lines 62-col. 12, lines 6).

33. As per claim 16, Aaker and Luick taught the invention substantially as claimed in claim 11 above. Aaker further taught wherein the server computer and the client computer are connected through a network (fig 1).

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34. Claims 9-10, 15, 26-27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aaker and Luick in view of Yashiro et al, U.S. Patent 5,787,460 (hereinafter Yashiro).

35. As per claims 9-10, 15, 26-27 and 30, Aaker and Luick further taught the invention comprising generating a database of repeated client commands wherein the repeated client commands are received by the server (see Luick, col. 9, lines 46-48; col. 6, lines 15-30; col. 21, lines 9-18). Aaker and Luick did not specifically detailing wherein the commands are received at least twice by the server. Yashiro taught generating a database based on a predetermined number of repetitions (col. 25, lines 11-23).

36. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Aaker, Luick and Yashiro because Yashiro's teaching of generating a database based on a predetermined number of repetitions would increase the efficiency of Aaker's and Luick's systems by limiting the traffic for accessing to the database.

37. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aaker in view of Brye, U.S. Patent 6,718,322 (hereinafter Brye).

38. As per claim 33, Aaker taught the invention as claimed in claim 1 above. Aaker further taught wherein:

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receiving the portion of the client command from the client computer comprises receiving one or more, but not all, of the statements (col. 5, lines 47-57) (Note that since the first or current request (i.e., portion of the client command) is use to predict the next request (i.e., remaining portion of the client command), therefore it is inherent that prediction of the client command is made prior to receiving all or remaining portion of the command) (col. 3, lines 20-26).

39. Aaker did not specifically disclose that the client command is a set of statements forming a database request. Brye taught the client command comprises a set of statements forming a database request (col. 10, lines 10-30).

40. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Aaker and Brye because Brye's teaching of client command as a set of statements forming a database request would increase the efficiency of Aaker's system by minimizing the delays associated with the execution of database request.

41. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aaker and Luick in view of Brye.

42. As per claim 34, Aaker and Luick taught the invention substantially as claimed in claim 11 above. Although, Aaker and Luick taught wherein:

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the command set database comprises requests expected to be received (see Luick, col. 6, lines 25-30) from the client computer (see Aaker, col. 6, lines 15-26); and the processor is configured to determine predicted request from the command set database in response to receiving one or more query forming a client request (see Aaker, col. 5, lines 47-57; col. 6, lines 15-26), Aaker and Luick, however, did not teach one or more statements forming a database request and a database. Byre taught one or more statements forming a database request (col. 10, lines 10-30) and a server computer comprises a database (fig. 1) queryable by database requests received from the client computer (fig. 1; col. 4, lines 52-65; col. 10, lines 10-30).

43. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Aaker, Luick and Brye because Brye's teaching of client command as a set of statements forming a database request would increase the efficiency of Aaker's and Luick's systems by minimizing the delays associated with the execution of database request.

44. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wagstaff et al, U.S. Patent 6,629,095, disclosed a database system with a predict sub-table.

Bredenberg, U.S. Patent 5,918,224, disclosed a client and server database system where the server generate a command tree based on command statement from the client.

Muthukkaruppan et al, U.S. Patent 6,275,830, disclosed a method of storing SQL statement in memory for subsequent executions of the statement.

Lavender et al, U.S. Patent 6,748,378, disclosed a method of generating SQL statement for retrieving a data set from a database.

45. Applicant's arguments with respect to claims 1-34, filed 11/23/04, have been fully considered but are not deemed to be persuasive and are moot in view of new grounds of rejection.

46. In the remark applicant argued that

- (1) Luick, U.S. Patent 6,230,260 may not be properly cited against the patentability of the claims, pursuant to 35 U.S.C. 103c.

47. In response to point (1), the applicability of this rejection (e.g., the availability of the Luick as a reference under 35 U.S.C. 102(a)) prevents the reference from being disqualified under 35 U.S.C. 103(c).

48. Applicant has provided evidence in this file showing that the invention was owned by, or subject to an obligation of assignment to, the same entity as Luick, U.S. Patent 6,230,260 at the time this invention was made, or was subject to a joint research agreement at the time this invention was made. However, reference Luick, U.S. Patent 6,230,260 additionally qualifies as

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prior art under another subsection of 35 U.S.C. 102, and therefore, is not disqualified as prior art under 35 U.S.C. 103(c).

49. Applicant may overcome the applied art either by a showing under 37 CFR 1.132 that the invention disclosed therein was derived from the invention of this application, and is therefore, not the invention "by another," or by antedating the applied art under 37 CFR 1.131.

50. Applicant is referred to the Manual of Patent Examining Procedure (MPEP) section 706.02 (I) and 706.02(a), last paragraph, for information regarding reference disqualified under 35 U.S.C. 103(c).


51. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

52. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action. Any inquiry concerning this communication or earlier communications form the

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examiner should be directed to Philip Lee whose telephone number is (571) 272-3967. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Philip Lee

 JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100